Column 447

Researchers finally pay attention to a misunderstood blackbird

by
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Over much of North America, a king's chef would be hard-pressed to come up with four and 20 *rusty* blackbirds to bake into a pie. Most other blackbird species are apparently doing well, but over most of its range *Euphagus carolinus* has declined drastically.

"Populations seem to have declined by about 95 per cent over the past many decades; estimates are that the population was up around 13 million back in the mid-1960s -- today it's down to approximately 2 million," says Canadian Wildlife Service biologist Pam Sinclair.

However, no one really paid attention to the significance of that decline until very recently, adds Sinclair, who is part of a team that began studying these birds in the territory this year.

A female rusty blackbird hunts for food at the Whitehorse landfill before heading south.

(photo: Pam Sinclair)

The rusty blackbird "has been under the radar for several reasons," she says.

"It's a boreal species and until recently there wasn't a lot of research interest in the boreal. The boreal is vast and remote and hadn't been thought to be under threat.

"Rusty blackbirds have sort of fallen through the cracks. They're a wetland bird, but they're not a so-called water bird. They're a songbird, but songbird surveys tend to be land-based because most songbirds are land birds. And waterfowl surveys don't tend to count songbirds.

"Also, blackbirds have traditionally been thought of as a nuisance."

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Like birds of prey, blackbirds were overlooked when the Migratory Birds Treaty between Canada and the United States was signed in 1916. Under the treaty, Canadian legislation was written to protect birds which were "beneficial" or "harmless." Blackbirds were thought of as pests, so they weren't protected.

To add injury to insult, because blackbirds eat corn and grains, blackbird-control programs have been implemented on the wintering grounds, killing large numbers of birds at their traditional roosts.

"But this blackbird is different," says Sinclair. Unlike its less-specialized cousins, the rusty blackbird has a fairly strict diet of mostly insects and snails found in forested wetlands, its preferred habitat.

"It is not as adaptable to human presence as other blackbirds. The others have done quite well as humans have spread across the landscape, cleared land for agriculture and grown crops."

The rusty blackbird once bred in great numbers right across the boreal region of North America from Alaska to Newfoundland. It winters primarily in the US southeast, including in the Mississippi drainage.

Even in its winter range it prefers insects of the forested wetlands, says Sinclair.

Scientists have no shortage of ideas about what might be causing the decline of this bird.

Much of its preferred wintering grounds has been converted to agricultural use over the past century.

"Also in eastern boreal forests, acid rain has changed the water chemistry of the wetlands and that may have a significant effect on the foods these blackbirds eat," says Sinclair.

Huge hydroelectric reservoirs have drowned forests in the East. As drowned forests rot, naturally occurring mercury is released into the aquatic environment in a toxic form.

Meanwhile, the other less-specialized, more-adaptable species of blackbirds may be competing for space with the more vulnerable rusty blackbirds.

Then there's global warming, always a source of anxiety about the future. Wetlands are drying in many areas of the world. And if warming results in an earlier spring hatch for insects, will the birds be able to adapt quickly enough to lay and hatch their own eggs while that food is most available?

Are these blackbirds reproducing properly? Are adults surviving the winter?

Whatever is happening, the rusty blackbird is being hurt, but it is not alone. Other

boreal species like lesser scaup, lesser yellowlegs and solitary sandpipers are also in decline.

If there is good news, it's that the rusty blackbird is still fairly common in the Yukon. That's one of the reasons Sinclair and her colleagues launched their survey this fall. It may still be possible to find out what's happening to these birds elsewhere and do something about the situation.

At the end of the summer, rusty blackbirds gather together for their migration. The compost pile at the Whitehorse landfill attracts them in great numbers then -- and that, in turn, now attracts scientists.

With nets and traps, these researchers managed to catch 35 birds. These were handled briefly in order to measure, weigh and band them.

As well, each bird donated a feather to science. In the summer the birds molt and grow a whole new set of feathers. (These feathers have a golden or "rusty" edge, which wears off over the winter, so that by the beginning of the breeding season the rusty birds are completely black.)

The feathers naturally contain hydrogen isotopes associated with their summer environment, or a particular isotope "signature." That signature can be read in the feathers of birds on their winter range, and that can help determine where they spend the rest of the year.

An ability to trace the annual rusty blackbird pathways may help scientists determine just what threats the birds are facing.

"If we can find out where the relatively healthy Yukon/Alaska populations are wintering, and where the eastern populations are wintering, it would put us in a better position to focus conservation efforts more effectively," says Sinclair.

She is encouraged by increasing public concern about the boreal.

"The boreal -- they're calling it one of the Earth's lungs, along with the Amazon forest, so public awareness is increasing. Ten or twenty years ago, nobody thought much about the boreal, not feeling that it was under immediate threat."

That's changing and "the Yukon and Alaska seem to be the last stronghold for a species in trouble -- and the rusty blackbird represents the boreal and how it's not doing very well, so we need to pay attention," says Sinclair.

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